

Record order intake in 2024 for Air Liquide's Turbo-Brayton proprietary solution

Air Liquide achieved in 2024 a new milestone with its Turbo-Brayton cryogenic equipment with close to 70 units ordered during the year. This innovative solution is particularly acclaimed by the maritime transport industry as it effectively addresses the challenges of onboard boil-off gas reliquefaction. This continued commercial and industrial success illustrates the capacity of the Group to develop innovative and efficient technological solutions toward full industrialization to best meet a critical market need.

This Air Liquide technology was first used in the space industry to cryogenically preserve biological samples on the International Space Station (ISS), before being scaled up and adapted for the maritime transport industry. Its key features: a 'plug&play' solution, preventive maintenance-free with low electrical consumption and high reliability, positioned it as the preferred choice in the maritime industry to comply with the regulations on boil-off gases and meet requirements for safety, environmental protection, and operational efficiency.

Indeed, during transportation, Liquid Natural Gas (LNG) tends to reheat and in part evaporates. The Air Liquide Turbo-Brayton subcooler cryogenic equipment reliquefies the evaporated natural gas and keeps it in the storage in liquid form. It is specifically designed to be installed on LNG carriers and bunker vessels, both on newly built ships and existing vessels being retrofitted.

Over the last 6 years, orders for this solution amounted to more than one billion euros with more than 250 units sold, reinforcing Air Liquide's position as a trusted strong business partner for the maritime sector.